

CLAIMS

1. An imaging apparatus comprising:

- an exterior case to which a lens device is attached;
- a flashlight device supported in the vicinity of an objective lens of said lens device, capable of moving between a pop-up position and a storage position through a turning arm;
- spring means that makes said flashlight device pop up to be urged to said pop-up position; and
- holding means for holding said flashlight device in said storage position;

wherein the pop-up angle of said flashlight device is set at 20 degrees or less and a light emitting portion faces the front of a subject in the pop-up position.

2. An imaging apparatus according to claim 1,

wherein said flashlight device is disposed in the upper direction of said holding means and adjacently in the vicinity of said objective lens.

3. An imaging apparatus according to claim 1,

wherein said flashlight device includes a reflecting mirror in which a light source is loaded;

said reflecting mirror has a pair of first reflecting surfaces which are made of part of a cylindrical curved surface

and which are opposed to each other and a second reflecting surface which is continuous with said pair of first reflecting surfaces and in which a light source is stored; and a continuous portion, where said pair of first reflecting surfaces and said second reflecting surface continue, is set at a position on the opening portion side of the pair of first reflecting surfaces, which is displaced from the central portion of said stored light source.

4. An imaging apparatus according to claim 3,

wherein said second reflecting surface includes: a cylinder-like cylindrical surface portion obtained by making the central portion of said light source be the center of a curvature radius; a pair of parallel plane portions which are provided in part of said cylindrical surface portion and which are expanded in approximately parallel with a central surface that makes said pair of first reflecting surfaces symmetrical; and a pair of inclined plane portions that are provided in part of said cylindrical surface portion and are extended in the tangent line direction from a first intersecting portion, at which an extended line of the line connecting said continuous portion to said central portion intersects said cylindrical surface portion, to a second intersecting portion at which the pair of inclined plane portions intersect said parallel plane

portions.

5. An imaging apparatus according to claim 3,
wherein the length between a pair of continuous portions that connect said pair of first reflecting surfaces to said second reflecting surface is made smaller than the diameter of the cylindrical surface portion constituting part of said second reflecting surface.

6. An imaging apparatus according to claim 3,
wherein said second reflecting surface is formed into an elliptical shape so that the position of said light source adjustably moves along said central plane.

7. An imaging apparatus according to claim 3,
wherein said second reflecting surface includes: a curved surface portion obtained by making the central portion of said light source be the center of a curvature radius; a pair of parallel plane portions developed in approximately parallel with the central surface from a vertical intersecting portion at which said curvature radius intersects a vertical surface that passes said central portion and vertically intersects said central plane; and a pair of inclined plane portions which are continuous on one side of said curved surface portion and which

are extended and developed in the tangent line direction from the first intersecting portion, at which an extended line of the line connecting said continuous portion to said central portion intersects the curved surface portion, to the second intersecting portion at which the pair of inclined plane portions intersect said parallel plane portions.

8. An imaging apparatus according to claim 3,

wherein said second reflecting surface includes: an elliptical cylindrical surface portion obtained by making the central portion of said light source be the center of the curvature radius; a pair of parallel plane portions which are provided in part of said cylindrical surface portion and which are developed in approximately parallel with a central surface that makes said pair of first reflecting surfaces symmetrical; and a pair of inclined plane portions that are provided in part of said cylindrical surface portion and are extended and developed in the tangent line direction from a first intersecting portion, at which an extended line of the line connecting said continuous portion to said central portion intersects said cylindrical surface portion, to a second intersecting portion at which the pair of inclined plane portions intersect the parallel plane portions.

9. An imaging apparatus according to claim 3,

wherein said second reflecting surface includes: a first curved surface portion obtained by making the central portion of said light source be the center of the curvature radius; a second curved surface portion that passes said continuous portion and is obtained by making the center of the curvature radius urged from the central portion of said light source to the side approaching the continuous portion or to the side departing therefrom; and a pair of inclined plane portions which continue on both sides of said first curved surface portion and which are extended and developed in the tangent direction from the first intersecting portion, at which an extended line of the line connecting said continuous portion to said central portion intersects said first curved surface portion, to said second curved surface portion that intersects a vertical surface passing said central portion and vertically intersecting said central plane.

10. An imaging apparatus according to claim 9,

wherein the central portion of said second curved surface portion is an intersection point that is vertically descended from the first intersecting portion at which the extended line of the line connecting said continuous portion to said central portion intersects the first curved surface portion, or an

intersection point in the vicinity thereof.

11. An imaging apparatus according to claim 1,
wherein a blindfolding board is provided on the lower surface of said flashlight device for covering said storage position when the flashlight device is moved to said pop-up position.

12. An imaging apparatus according to claim 11,
wherein said blindfolding board has a pair of shaft portions projecting in directions opposite to each other on the same axis line and said pair of shaft portions are supported by both ends at the lower part of said flashlight device, and said blindfolding board is capable of turning in the range of predetermined angles using its own weight.

13. An imaging apparatus according to claim 11,
wherein a plunger mechanism is disposed in the lower direction of said blindfolding board for popping up said flashlight device.